**DATE PRESENTING CLINICAL SIGNS**

3/10/2022

Concern for elevated liver values during annual exam. Previous AUS did not find an obvious cause for the elevated liver enzymes, but the uterine stump was noted to be inflamed. P has been doing well at home.

**PATIENT**

Cirilla Adams

Date of Previous IntraPet Ultrasound: 2/10/22. See attached.  
 Sedation: Not required to complete full diagnostic ultrasound.  
 Stat Report: Not requested.  
 Imaging Performed By: Stephanie Pearce RDCS, RVT.

**SPECIES**

Canine

**ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN****BREED**

Labrador Mix

**Urinary System**

The urinary bladder, trigone, and pelvic urethra are normal in thickness and the mucosal surface is smooth. The bladder lumen is moderately distended with anechoic urine. No masses, inflammatory changes or calculi are observed. Ureteral papillae and visualized portion of the proximal urethra, visible to a depth of 2 cm, are normal.

**SEX**

Spayed Female

The left kidney is normal size (6.83 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with minimal to mild loss of corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydronephrosis. Renal vasculature is normal.

**AGE**

1/26/2017

The right kidney is normal size (6.54 cm in length); normal shape and architecture with smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with minimal loss of corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydronephrosis. Renal vasculature is normal.

**WEIGHT**

62.6 lbs

**INTERPRETED BY**

Andrea Nicastro, DMV,  
 Diplomate DACVIM  
 (Small Animal  
 Internal Medicine)

**Adrenal Glands**

The left adrenal gland is normal size (0.68 cm at cranial pole) (0.70 cm at caudal pole) (3.27 cm in length); normal shape; homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

**HOSPITAL NAME**

Eastern Animal  
 Hospital

The right adrenal gland is normal size (0.79 cm at cranial pole) (0.74 cm at caudal pole) (3.23 cm in length); normal shape; homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

**REFERRING VET**

Dr. Frere

**Spleen**

The spleen is normal in size (1.65 cm in width at the level of the hilus) with a normal capsular contour. There is appropriate echogenicity and echotexture. No focal lesions are observed. Splenic vasculature is normal.

**INVOICE**

10531

**Liver**

The liver is subjectively normal in size with normal contours and structure. There is appropriate echogenicity and echotexture. No overt structural evidence of inflammatory, infiltrative or regenerative pathology is evident. Vascular and biliary tracts are of normal volume with no evidence of congestion. No pathological hepatic lymphadenopathy observed.

The gall bladder lumen is moderately distended. The wall is thin and smooth. Luminal contents are mostly anechoic. The cystic and common bile ducts are normal.

### ***Gastrointestinal***

The stomach and intestine are free of stasis and exhibit normal peristaltic activity. The gastric lumen is not distended. The gastric wall and pylorus are normal in thickness with a normal layering pattern. The small intestinal lumen is not dilated. The small intestinal wall thickness is normal with a normal layering pattern and appropriate mural detail. Discreet masses are not identified. The colonic wall is normal. No obstructive or overt infiltrative disease is noted.

### ***Pancreas***

The region of the pancreas is isoechoic relative to surrounding omental fat. No obvious parenchymal abnormalities are observed. There is no evidence of regional inflammation or effusion.

### ***Free Abdomen***

The peritoneal cavity is normal. There is no evidence of inflammation or effusion. A few prominent mid- and caudal abdominal lymph nodes are visualized, the largest measuring 3.54 cm in length.

### ***Other***

A uterine stump is visible (0.83 cm in width). No obvious pathology is observed in this region.

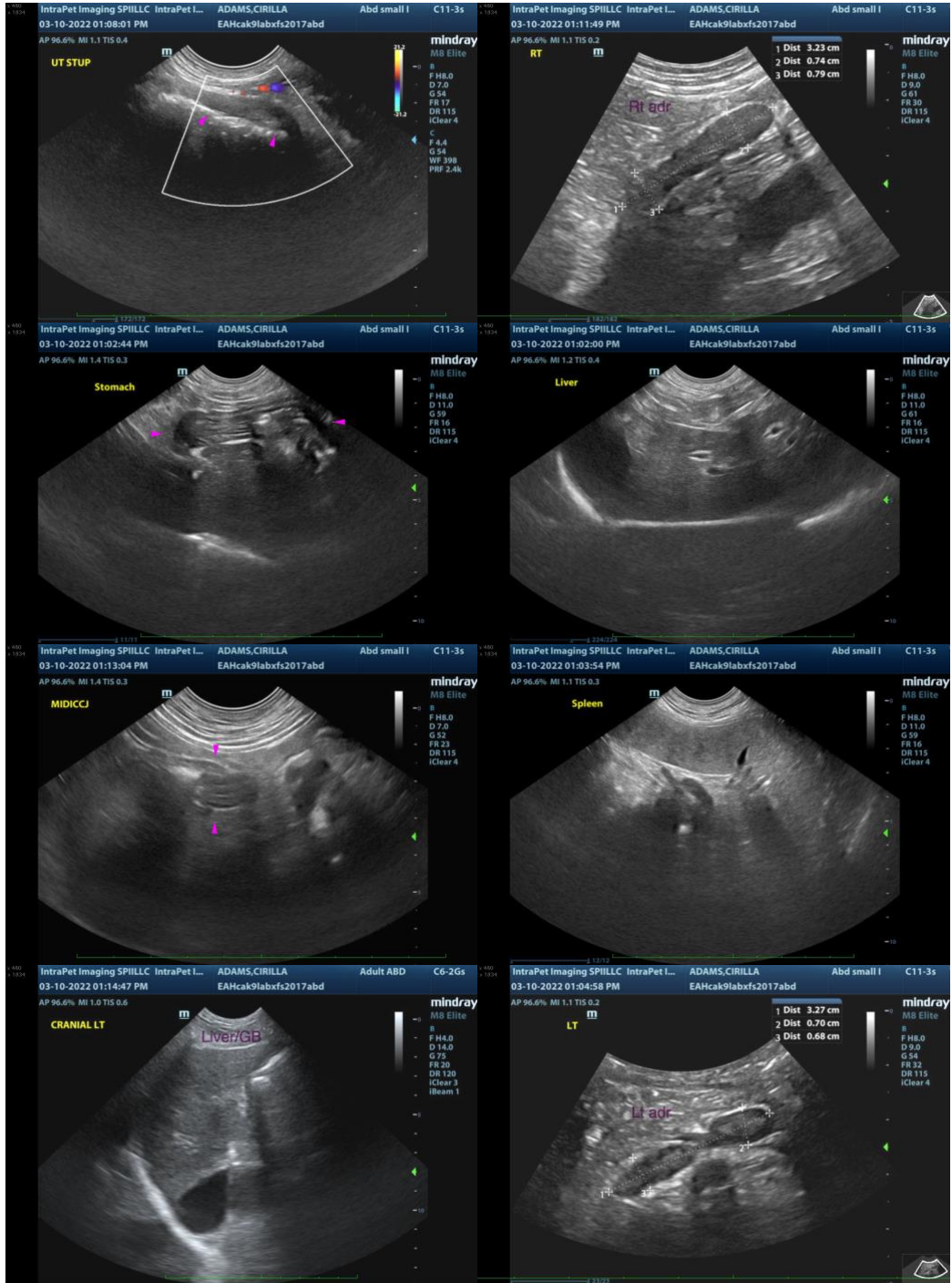
## **ULTRASONOGRAPHIC FINDINGS**

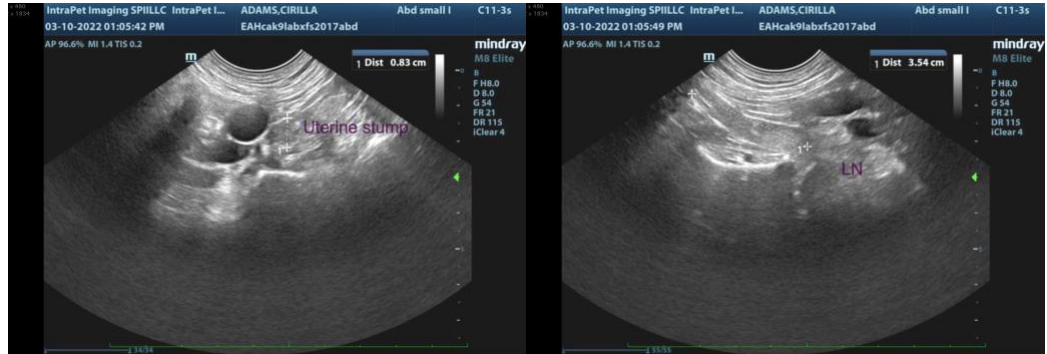
### **Primary Findings**

- Minor non-specific chronic renal changes
- The prominent abdominal lymph nodes are most consistent with reactive lymphadenitis or lymphoid hyperplasia. Neoplastic infiltration is considered less likely.
- An obvious cause for the patient's elevated liver enzymes is not definitively identified in this study. However, a microscopic hepatopathy is suspected based on the previously noted elevated liver values.
- The uterine stump no longer appears enflamed.

## **INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

- Hepatic tissue sampling (i.e., fine-needle aspirate or surgical biopsy), can be considered if clotting status is appropriate. Surgical biopsy would be ideal in that it is more likely to reflect a global organ pathology. If surgical biopsies are pursued, aerobic and anaerobic bile cultures are recommended along with acquisition of additional hepatic tissue samples for potential copper quantitation.
- Also consider Leptospirosis testing, if not already performed.





The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

Thank you for this referral. If the clinical or image interpretation does not parallel your findings or if I can be of any further assistance, please contact me.

**Andrea Nicastro, DVM, Diplomate DACVIM (Small Animal Internal Medicine)**  
info@SonoPath.com